

CLAIMS

1. An apparatus for storing main information and a supplementary information item that accompanies the main information, comprising:

5 determination means for determining, for each supplementary information item having a plurality of description forms, priority for each of the plurality of description forms in advance;

selection means for selecting a description form to  
10 be used in recording in accordance with the priority from description forms usable in the apparatus; and

recording means for recording the supplementary information item by the selected description form in correspondence with the main information.

15 2. The apparatus according to claim 1, wherein said selection means selects a plurality of description forms to be used from the description forms usable in the apparatus in descending order of priority within a usable range in consideration of a limitation of the apparatus.

20 3. The apparatus according to claim 1, wherein said selection means selects a plurality of description forms or expression forms to be used from the description forms usable in the apparatus in descending order of priority within a usable range in consideration of a limitation of  
25 the apparatus and simultaneously selects all description forms having priority higher than the lowest priority in the selected description forms.

4. The apparatus according to claim 1, wherein when the description forms usable in the apparatus include description forms that cannot be simultaneously used because of a limitation of the apparatus, said selection  
5 means selects one description form having high priority for the description forms, and for the remaining description forms, selects the plurality of usable description forms to be used in descending order of priority.

5. The apparatus according to claim 1, wherein when the  
10 description forms usable in the apparatus include usable description forms whose number or combination is limited because of a limitation of the apparatus, said selection means selects description forms having high priority as many as possible within the limit.

15 6. The apparatus according to claim 1, wherein said selection means selects a description form to be used from the description forms usable in the apparatus in descending order of priority within a usable range in consideration of a limitation of the apparatus and changes a storage  
20 location or storage scheme of the supplementary information item on a storage medium in accordance with the priority.

7. The apparatus according to claim 6, wherein in changing the storage location or storage scheme of the supplementary information item on the storage medium, said  
25 selection means stores a supplementary information item with a description form having high priority at a storage location or by a storage scheme, with which storage or

retrieval is easy.

8. The apparatus according to claim 6, wherein in changing the storage location or storage scheme of the supplementary information item on the storage medium, said  
5 selection means stores supplementary information at a storage location or by a storage scheme, with which storage or retrieval of the supplementary information item is easy, in an order of priority of the description form or expression form.

10 9. The apparatus according to claim 6, wherein in changing the storage location or storage scheme of the supplementary information item on the storage medium, said selection means defines in advance a rule to assign a description form having specific priority to each of a  
15 plurality of storage locations or storage schemes on the storage medium and determines the storage location or storage scheme in accordance with the rule.

10. The apparatus according to claim 6, wherein in changing the storage location or storage scheme of the  
20 supplementary information item on the storage medium, said selection means defines in advance a rule to assign a description form having specific priority to each of a plurality of storage locations or storage schemes on the storage medium for each supplementary information item to  
25 be recorded and determines the storage location or storage scheme in accordance with the rule.

11. The apparatus according to claim 1, wherein

the apparatus is a moving image sensing apparatus,  
and

the main information is a moving image, and the  
supplementary information item contains at least one of  
5 information of an image sensing device, state information  
of an optical device, information related to user's  
operation, and information related to a photographing  
environment at the time of photographing.

12. The apparatus according to claim 11, wherein when a  
10 plurality of sensors or devices related to the  
supplementary information item are present, the sensor or  
device whose information is to be selected and stored is  
determined in descending order of priority.

13. The apparatus according to claim 11, wherein when  
15 acquisition of information from a sensor or another device  
has limitation, the sensor or another device whose  
information is to be selected and stored is determined in  
descending order of priority.

14. The apparatus according to claim 13, wherein the  
20 limitation is limitation related to a time in which the  
information is acquired from the sensor or another device.

15. The apparatus according to claim 13, wherein the  
limitation is limitation related to a temporary storage  
amount of the information acquired from the sensor or  
25 another device.

16. The apparatus according to claim 11, wherein when  
arithmetic operation of simultaneously converting

information from a sensor or device into a plurality of unit systems or accuracies has limitation, the unit system to be selected is determined in descending order of priority.

17. The apparatus according to claim 16, wherein the  
5 limitation is limitation related to a time in which the information from the sensor or device is simultaneously re-calculated to the plurality of unit systems or accuracies.

18. The apparatus according to claim 16, wherein the  
10 limitation is limitation related to a temporary storage amount of the re-calculated information.

19. The apparatus according to claim 16, wherein the limitation is limitation related to an arithmetic capability for simultaneously re-calculating the  
15 information from the sensor or another device to the plurality of unit systems or accuracies.

20. The apparatus according to claim 16, wherein the limitation is that the information from the sensor of another device contains unacquired information.

20 21. The apparatus according to claim 11, wherein when information from a sensor or another device can be simultaneously described by a plurality of forms, and limitation related to the description is present, the sensor or another device whose information is to be selected  
25 and stored is determined in descending order of priority.

22. The apparatus according to claim 21, wherein the limitation is limitation related to a time usable for the

description.

23. The apparatus according to claim 21, wherein the limitation is limitation related to an amount of information that can be described.

5 24. The apparatus according to claim 11, wherein the priority is defined in accordance with easiness of information acquisition or use frequency of information.

25. The apparatus according to claim 11, wherein when information from a sensor or another device can be  
10 simultaneously described by a plurality of forms, each information is described while dividing a storage region for the priority that is defined in advance for each information.

26. The apparatus according to claim 11, wherein when  
15 information from a sensor or another device can be simultaneously described by a plurality of forms, each information is selectively described in accordance with a storage region that is defined in advance for each information.

20 27. The apparatus according to claim 26, wherein the storage region of each information is defined in accordance with easiness of information acquisition or use frequency of information.

28. A method of storing main information and a  
25 supplementary information item that accompanies the main information, comprising:

the determination step of determining, for each

supplementary information item having a plurality of description forms, priority for each of the plurality of description forms in advance;

the selection step of selecting a description form  
5 to be used in recording in accordance with the priority from description forms usable in the apparatus; and

the recording step of recording the supplementary information item by the selected description form in correspondence with the main information.

10 29. The method according to claim 28, wherein in the selection step, a plurality of description forms to be used are selected from the description forms usable in the apparatus in descending order of priority within a usable range in consideration of a limitation of the apparatus.

15 30. The method according to claim 28, wherein in the selection step, a plurality of description forms or expression forms to be used are selected from the description forms usable in the apparatus in descending order of priority within a usable range in consideration  
20 of a limitation of the apparatus, and simultaneously, all description forms having priority higher than the lowest priority in the selected description forms are selected.

31. The method according to claim 28, wherein in the selection step, when the description forms usable in the  
25 apparatus include description forms that cannot be simultaneously used because of a limitation of the apparatus, one description form having high priority is

selected for the description forms, and for the remaining description forms, the plurality of usable description forms to be used are selected in descending order of priority.

5 32. The method according to claim 28, wherein in the selection step, when the description forms usable in the apparatus include usable description forms whose number or combination is limited because of a limitation of the apparatus, description forms having high priority are  
10 selected as many as possible within the limit.

33. The method according to claim 28, wherein in the selection step, a description form to be used is selected from the description forms usable in the apparatus in descending order of priority within a usable range in  
15 consideration of a limitation of the apparatus, and a storage location or storage scheme of the supplementary information item on a storage medium is changed in accordance with the priority.

34. The method according to claim 33, wherein in the  
20 selection step, in changing the storage location or storage scheme of the supplementary information item on the storage medium, a supplementary information item with a description form having high priority is stored at a storage location or by a storage scheme, with which storage or retrieval is  
25 easy.

35. The method according to claim 33, wherein in the selection step, in changing the storage location or storage



scheme of the supplementary information item on the storage medium, supplementary information is stored at a storage location or by a storage scheme, with which storage or retrieval of the supplementary information item is easy,  
5 in an order of priority of the description form or expression form.

36. The method according to claim 33, wherein in the selection step, in changing the storage location or storage scheme of the supplementary information item on the storage  
10 medium, a rule to assign a description form having specific priority to each of a plurality of storage locations or storage schemes on the storage medium is defined in advance, and the storage location or storage scheme is determined in accordance with the rule.

15 37. The method according to claim 33, wherein in the selection step, in changing the storage location or storage scheme of the supplementary information item on the storage medium, a rule to assign a description form having specific priority to each of a plurality of storage locations or  
20 storage schemes on the storage medium for each supplementary information item to be recorded is defined in advance, and the storage location or storage scheme is determined in accordance with the rule.

38. The method according to claim 28, wherein  
25 the apparatus is a moving image sensing apparatus, and

the main information is a moving image, and the

supplementary information item contains at least one of  
information of an image sensing device, state information  
of an optical device, information related to user's  
operation, and information related to a photographing  
5 environment at the time of photographing.

39. The method according to claim 38, wherein when a  
plurality of sensors or devices related to the  
supplementary information item are present, the sensor or  
device whose information is to be selected and stored is  
10 determined in descending order of priority.

40. The method according to claim 38, wherein when  
acquisition of information from a sensor or another device  
has limitation, the sensor or another device whose  
information is to be selected and stored is determined in  
15 descending order of priority.

41. The method according to claim 40, wherein the  
limitation is limitation related to a time in which the  
information is acquired from the sensor or another device.

42. The method according to claim 40, wherein the  
20 limitation is limitation related to a temporary storage  
amount of the information acquired from the sensor or  
another device.

43. The method according to claim 38, wherein when  
arithmetic operation of simultaneously converting  
25 information from a sensor or device into a plurality of unit  
systems or accuracies has limitation, the unit system to  
be selected is determined in descending order of priority.

44. The method according to claim 43, wherein the limitation is limitation related to a time in which the information from the sensor or device is simultaneously re-calculated to the plurality of unit systems or  
5 accuracies.

45. The method according to claim 43, wherein the limitation is limitation related to a temporary storage amount of the re-calculated information.

46. The method according to claim 43, wherein the  
10 limitation is limitation related to an arithmetic capability for simultaneously re-calculating the information from the sensor or another device to the plurality of unit systems or accuracies.

47. The method according to claim 43, wherein the  
15 limitation is that the information from the sensor of another device contains unacquired information.

48. The method according to claim 38, wherein when information from a sensor or another device can be simultaneously described by a plurality of forms, and  
20 limitation related to the description is present, the sensor or another device whose information is to be selected and stored is determined in descending order of priority.

49. The method according to claim 48, wherein the limitation is limitation related to a time usable for the  
25 description.

50. The method according to claim 48, wherein the limitation is limitation related to an amount of

information that can be described.

51. The method according to claim 38, wherein the priority is defined in accordance with easiness of information acquisition or use frequency of information.

5 52. The method according to claim 38, wherein when information from a sensor or another device can be simultaneously described by a plurality of forms, each information is described while dividing a storage region for the priority that is defined in advance for each  
10 information.

53. The method according to claim 38, wherein when information from a sensor or another device can be simultaneously described by a plurality of forms, each information is selectively described in accordance with a  
15 storage region that is defined in advance for each information.

54. The method according to claim 53, wherein the storage region of each information is defined in accordance with easiness of information acquisition or use frequency of  
20 information.

55. A control program for causing a computer to execute the information storing method of any one of claims 28 to 54.

56. A storage medium which stores a control program for  
25 causing a computer to execute the information storing method of any one of claims 28 to 54.